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(54) Title: ANTIBODIES, INCLUDING Fv MOLECULES, AND IMMUNOCOCONJUGATES HAVING HIGH BINDING AFFINITY FOR MESOTHELIN AND METHODS FOR THEIR USE

(57) Abstract

Mesothelin is a differentiation antigen present on the surface of ovarian cancers, mesotheliomas and several other types of human cancers. Because among normal tissues, mesothelin is only present on mesothelial cells, it represents a good target for antibody mediated delivery of cytotoxic agents. The present invention is directed to anti-mesothelin antibodies, including Fv molecules with particularly high affinity for mesothelin, and immunoconjugates employing them. Also described are diagnostic and therapeutic methods using the antibodies. The anti-mesothelin antibodies are well-suited for the diagnosis and treatment of cancers of the ovary, stomach, squamous cells, mesotheliomas and other malignant cells expressing mesothelin.

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